Previous Doc Next Doc Go to Doc#

☐ . Generate Collection Print

L1: Entry 2 of 6

File: USPT

Sep 14, 1999

#### DOCUMENT-IDENTIFIER: US 5952001 A

TITLE: Use of an .alpha.-tocopherol phosphate or a derivative thereof for preparing cosmetic, dermatological or pharmaceutical compositions, and compositions thereby obtained

## <u>Detailed Description Text</u> (5):

The mixture is then homogenized by ultrasound for 10 min at 150 W until a clear suspension is obtained, which gives rise to the production of <a href="liposome">liposome</a>-type vesicles of disodium tocopherol phosphate.

# <u>Detailed Description Text</u> (10):

The Example described gave about 100 g of suspension containing about 0.8% of monosodium dl-.alpha. -tocopherol phosphate in the form of liposome-type vesicles of substantially homogeneous sizes.

Record List Display Page 1 of 4

# **Hit List**

# First Hit Generale Collection Print Fwd Reis Bland Reis Canarate OACS

**Search Results -** Record(s) 1 through 6 of 6 returned.

☐ 1. Document ID: US 6485950 B1

Using default format because multiple data bases are involved.

L1: Entry 1 of 6

File: USPT

Nov 26, 2002

US-PAT-NO: 6485950

DOCUMENT-IDENTIFIER: US 6485950 B1

TITLE: Isozyme of autoclavable superoxide dismutase (SOD), a process for the identification and extraction of the SOD in cosmetic, food and pharmaceutical compositions

DATE-ISSUED: November 26, 2002

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY

Kumar;SanjayHimachalPradeshINSahoo;RashmitaHimachalPradeshINAhuja;ParamvirSinghHimachalPradeshIN

US-CL-CURRENT: 435/189; 424/94.4, 435/183, 977/915, 977/926CIPG20060101AA23GA23G4

Full Title Citation Front Review Classification Date Reference

☐ 2. Document ID: US 5952001 A

L1: Entry 2 of 6 File: USPT Sep 14, 1999

US-PAT-NO: 5952001

DOCUMENT-IDENTIFIER: US 5952001 A

TITLE: Use of an .alpha.-tocopherol phosphate or a derivative thereof for preparing cosmetic, dermatological or pharmaceutical compositions, and compositions thereby obtained

DATE-ISSUED: September 14, 1999

INVENTOR - INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY

Meybeck; Alain Courbevoie FR
Bonte; Frederic Courbevoie FR
Marechal; Christian Paris FR

Record List Display Page 2 of 4

US-CL-CURRENT: 424/450; 514/100

Full Title Citation Front Review Classification Date Reference

Claims 1000 Dram De

☐ 3. Document ID: US 5656618 A

L1: Entry 3 of 6

File: USPT

Aug 12, 1997

US-PAT-NO: 5656618

DOCUMENT-IDENTIFIER: US 5656618 A

TITLE: Use of an .alpha.-tocopherol phosphate or a derivative thereof for preparing cosmetic, dermatological or pharmaceutical compositions, and compositions thereby obtained

DATE-ISSUED: August 12, 1997

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY

Meybeck; Alain Courbevoie FR
Bonte; Frederic Courbevoie FR
Marechal; Christian Paris FR

US-CL-CURRENT: 514/100; 424/450, 424/741, 514/458

Full	Titl∈	Citation	Front	Review	Classification	Date	Reference	20 7131112 111 111111	Claims	1004C	Ciranos Co

☐ 4. Document ID: US 5643597 A

L1: Entry 4 of 6

File: USPT

Jul 1, 1997

US-PAT-NO: 5643597

DOCUMENT-IDENTIFIER: US 5643597 A

TITLE: Use of a tocopherol phosphate or one of its derivatives for the preparation of cosmetic or pharmaceutical compositions and compositions so obtained

DATE-ISSUED: July 1, 1997

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY

Meybeck; AlainCourbevoieFRDumas; MarcColombesFRBonte; FredericCourbevoieFRMarechal; ChristianParisFR

US-CL-CURRENT: 424/450; 424/401, 424/73, 424/741, 514/100, 514/147, 514/458,

514/944

Record List Display Page 3 of 4

☐ 5. Document ID: US 5603949 A

L1: Entry 5 of 6

File: USPT

Feb 18, 1997

US-PAT-NO: 5603949

DOCUMENT-IDENTIFIER: US 5603949 A

TITLE: Use of a tocopherol phosphate or one of its derivatives, for the preparation

of cosmetic or pharmaceutical compositions and compositions so obtained

DATE-ISSUED: February 18, 1997

INVENTOR - INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY

Meybeck; AlainCourbevoieFRDumas; MarcColombesFRBonte; FredericCourbevoieFRMarechal; ChristianParisFR

US-CL-CURRENT: 424/450; 428/402.2, 514/458, 549/220

Full	Title	Citation	Front	Review	Classification	Date	Reference	 	Claims K000	Drawe De

☐ 6. Document ID: US 5387579 A

L1: Entry 6 of 6

File: USPT

Feb 7, 1995

US-PAT-NO: 5387579

DOCUMENT-IDENTIFIER: US 5387579 A

\*\* See image for <u>Certificate of Correction</u> \*\*

TITLE: Use of .alpha.-tocopherol phosphate or a derivative thereof for preparing cosmetic, dermatological or pharmaceutical compositions, and compositions thereby obtained

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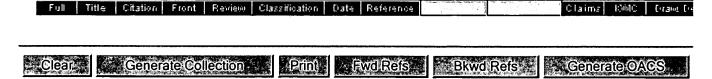
DATE-ISSUED: February 7, 1995

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY

Meybeck; Alain Courbevoie FR
Bonte; Frederic Courbevoie FR
Marechal; Christian Paris FR

US-CL-CURRENT: 514/100; 424/450, 424/741, 514/458



Terms	Documents
(tocopher\$ adj1 phosphate) same liposome	6

Display Format: - Change Format

Previous Page Next Page Go to Doc#

# First Hit Fwd Refs Previous Doc Next Doc Go to Doc# Generate Collection Print

L3: Entry 5 of 28 File: USPT Nov 12, 2002

DOCUMENT-IDENTIFIER: US 6479540 B1

TITLE: Compositions of tocol-soluble therapeutics

## Brief Summary Text (3):

Emulsions, and emulsification as a composition and method of administration of pharmaceuticals, have a long history in the medical arts. A recent advance was the use of .alpha.-tocopherol or other tocopherols, tocotrienols or derivatives thereof as a solvent to dissolve certain drugs at high enough concentrations to be therapeutically useful. TPGS (60 -tocopherol polyethyleneglycol 1000 succinate) for administration of a therapeutic was claimed by Biogal (U.S. Pat. No. 5,583,105) following disclosure in trade publications of the utility of TPGS as a bioavailability enhancer for drug delivery (Sokol, et al. The Lancet 338:212-215, 1991). Vitamin E and tocopherol acetates and succinates, including TPGS, were recently found useful in pharmaceutical formulations as solubilizers and cosolvents for the administration of medicaments (Dumex WO/95,31217 and Liposome Company, U.S. Pat. No. 5,041,278). Other patents disclose that tocopherols are excellent solvents for the peptide cyclosporin (Klokkers WO 95/11039), and for certain steroids (Peat, U.S. Pat. No. 4,439,432). Stillman (U.S. Pat. No. 4,551,332), and Hermes Pharma (EP 019817) described composition in which steroids and antibiotics, or ubiquinones, respectively, were co-solubilized in Vitamin E as pharmaceutical formulations.

#### Brief Summary Text (9):

Another solution has been to use <u>liposomes</u>, reverse emulsions or water/oil/water multiple emulsions, in which the drug may be contained in an aqueous phase dispersed in the oil matrix or, in the case of <u>liposomes</u>, enclosed within a lipid bilayer. These formulations are particularly valuable for water-loving drugs and macromolecules but may not provide the advantages of solubilizing the drug directly in the oil. In addition there are physical stability considerations of such systems.

#### Drawing Description Text (17):

Multiphase System: As used herein, this term refers to a system where one or more phases is (are) dispersed throughout another phase, which is usually referred to as the continuous phase or vehicle, or a precursor thereof. Emulsions, microemulsions and other nanoparticulates, including <a href="https://linear.com/line

# <u>Drawing Description Text</u> (18):

<u>Liposome</u>: A lipid bilayer vesicle formed spontaneously upon dispersion of lipids/phospholipids in water. "<u>Liposome</u>" is also defined as a vesicular structure consisting of hydrated bilayers.

# Drawing Description Text (19):

Niosome: In analogy to a <u>liposome</u>, a niosome is a nonionic surfactant vesicle. Classes of commonly used non-ionic surfactants include polyglycerol alkylethers, glucosyl dialkylethers, crown ethers and polyoxyethylene alkyl ethers and esters.

### <u>Drawing Description Text</u> (38):

For use in forming ion pairs with cationic drugs, the preferred method is to select

one or more charged derivatives of a tocol from the list: vitamin E succinate (VESA), vitamin E phosphate, and other charged tocopherol esters, amino acid derivatives such as tocopherol aspartate and glutamate, and other tocopherol ester or amide derivatives such as those disclosed herein or by Senju Pharmaceuticals (U.S. Pat. No. 5,606,080 or PCT WO 99/22818). For example, tocopherol succinate as the free acid (anionic) can be used to complex clarithromycin or amiodarone as the free base (cationic) to form a tocol-soluble neutral ion pair. In an oil phase of low dielectric constant, these ion pairs are highly stable once formed. Other tocol-soluble ion pair forming compounds include C.sub.2 -C.sub.25 tocol-soluble carboxylic acids (preferably the fatty acids) such as acetic, propionic, butyric, valeric, valproic, caprylic, caproic, lauric, myristic, palmitic, oleic, palmitoleic, stearic, linoleic, linolenic, arachidic and arachidonic acid; and include C.sub.2 -C.sub.25 acyl amines such as stearylamine, alkyl phosphates such as decyl and hexadecyl phosphate, other charged lipids such as cholesterol analogs, particularly cholesterol esters such as cholesterol sulfate and cholesterol hemisuccinate and succinate, bile acids, phospholipids such as phosphatidic acid, phosphatidylserine, phosphatidylglycerol and diphosphatidylglycerol (cardiolipin), phosphatidylinositol, sphingolipids such as sphingomyelin, cationic lipids such as, N-[1-(2,3-dioleoyloxy]-N, N,N-trimethylammonium chloride (DOGMA), N-Larginylphosphatidyl-ethanolamine, and 1,2-Diacetyl-3-dimethyl-and trimethylammonium propane, retinoids, vitamin A, D or K esters, and charged biosurfactants such as the Amisoft.RTM. line of glutamates available from Ajinomoto (Tokyo, Japan) and ascorbyl palmitate.

#### Detailed Description Text (6):

Clarithromycin free base is poorly water soluble but can be solubilized in water as a water-soluble salt, for example the lactobionate or glucoheptonate, solutions of which display the aforementioned venous irritation. The relative lipophilicity of clarithromycin has led various investigators to propose a variety of lipid dispersed systems, such as  $\frac{\text{liposomes}}{\text{mixed micelles}}$ , and oil-in-water (o/w) emulsions which might shield the drug from contact with sensitive tissues at the injection site. To date, however, none of these has advanced as far as clinical development.

# Detailed Description Text (41):

<u>Vitamin E phosphate</u> is supplied commercially as the sodium salt, so extraction into chloroform with acidic water was necessary to get the free acid, which was used to make an ion pair with doxorubicin free base at 2:1 molar ratio, which was soluble in vitamin E. This oil phase, when combined with the surfactant Tagat.RTM. TO (PEG-25 glyceryl trioleate), was readily emulsified at 60.degree. C. with water by hand mixing to make a crude emulsion of the composition shown below with no evidence of drug precipitation. A fine emulsion can be prepared using high pressure homogenization to reduce particle size.

## Detailed Description Paragraph Table (5):

Component mg/mL Doxorubicin (free base) 0.3 <u>Vitamin E Phosphate</u> 0.6 Vitamin E 23.0 Tagat TO 23.8 Water qs

## CLAIMS:

52. A composition according to claim 49 comprising micelles, mixed micelles, reverse micelles, <u>liposomes</u>, niosomes and mixtures thereof.

Record Display Form Page 1 of 2

# First Hit Fwd Refs Previous Doc Next Doc Go to Doc# Generate Collection Print

L3: Entry 23 of 28 File: USPT May 27, 1997

DOCUMENT-IDENTIFIER: US 5633285 A

TITLE: Cytoprotective wound healing compositions and methods for preparing and using same

### Detailed Description Text (25):

Antioxidants are substances which inhibit oxidation or suppress reactions promoted by oxygen or peroxides. Antioxidants, especially lipid-soluble antioxidants, can be absorbed into the cellular membrane to neutralize oxygen radicals and thereby protect the membrane. The antioxidants useful in the present invention may be selected from the group consisting of all forms of Vitamin A including retinol and 3,4-didehydroretinol, all forms of carotene such as Alpha-carotene, .beta.-carotene (beta, .beta.-carotene), gamma-carotene, delta-carotene, all forms of Vitamin C (Dascorbic acid, L-ascorbic acid), all forms of tocopherol such as Vitamin E (Alphatocopherol, 3,4-dihydro-2,5,7,8-tetramethyl-2-(4,8,12-trimethyltri-decyl)-2H-1benzopy ran-6-ol), .beta.-tocopherol, gamma-tocopherol, delta-tocopherol, tocoquinone, tocotrienol, and Vitamin E esters which readily undergo hydrolysis to Vitamin E such as Vitamin E acetate and Vitamin E succinate, and pharmaceutically acceptable Vitamin E salts such as Vitamin E phosphate, prodrugs of Vitamin A, carotene, Vitamin C, and Vitamin E, pharmaceutically acceptable salts of Vitamin A, carotene, Vitamin C, and Vitamin E, and the like, and mixtures thereof. Preferably, the antioxidant is selected from the group of lipid-soluble antioxidants consisting of Vitamin A, .beta.-carotene, Vitamin E, Vitamin E acetate, and mixtures thereof. More preferably, the antioxidant is Vitamin E or Vitamin E acetate. Most preferably, the antioxidant is Vitamin E acetate.

### Detailed Description Text (143):

Examples of pharmaceutical appliances are sutures, staples, gauze, bandages, burn dressings, artificial skins, <a href="liposome">liposome</a> or micell formulations, microcapsules, aqueous vehicles for soaking gauze dressings, and the like, and mixtures thereof. Non-oral topical compositions employ non-oral topical vehicles, such as creams, gels formulations, foams, ointments and sprays, salves, and films, which are intended to be applied to the skin or body cavity and are not intended to be taken by mouth. Oral topical compositions employ oral vehicles, such as mouthwashes, rinses, oral sprays, suspensions, and dental gels, which are intended to be taken by mouth but are not intended to be ingested. Ingestible compositions employ ingestible or partly ingestible vehicles such as confectionery bulking agents which include hard and soft confectionery such as lozenges, tablets, toffees, nougats, suspensions, chewy candies, and chewing gums.

## Detailed Description Text (144):

In one form of the invention, the therapeutic wound healing composition is incorporated into a pharmaceutical appliance which may be in the form of sutures, staples, gauze, bandages, burn dressings, artificial skins, <a href="liposome">liposome</a> or micell formulations, microcapsules, aqueous vehicles for soaking gauze dressings, and the like, and mixtures thereof. A variety of traditional ingredients may optionally be included in the pharmaceutical composition in effective amounts such as buffers, preservatives, tonicity adjusting agents, antioxidants, polymers for adjusting viscosity or for use as extenders, and excipients, and the like. Specific illustrative examples of such traditional ingredients include acetate and borate buffers; thimerosol, sorbic acid, methyl and propyl paraben and chlorobutanol

preservatives; sodium chloride and sugars to adjust the tonicity; and excipients such as mannitol, lactose and sucrose. Other conventional pharmaceutical additives known to those having ordinary skill in the pharmaceutical arts may also be used in the pharmaceutical composition.

# **Refine Search**

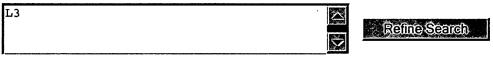
## Search Results -

Terms	Documents
(vitamin adj1 e adj1 phosphate) and liposome	28

US Pre-Grant Publication Full-Text Database US Patents Full-Text Database US OCR Full-Text Database EPO Abstracts Database JPO Abstracts Database **Derwent World Patents Index IBM Technical Disclosure Bulletins** 

Search:

Database:



Recall Text = Clear



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# Search History

DATE: Wednesday, March 01, 2006 Printable Copy Create Case

Set Name Query **Hit Count Set Name** side by side result set DB=USPT,EPAB,JPAB,DWPI,TDBD; PLUR=YES; OP=OR (vitamin adj1 e adj1 phosphate) and liposome 28 L3 <u>L3</u> <u>L2</u> (vitamin adj1 e adj1 phosphate) same liposome L2 1 (tocopher\$ adj1 phosphate) same liposome

**END OF SEARCH HISTORY** 

L1

# **Hit List**

First Hit Clear Generate Collection Print Fwd Refs Bland Refs
Generate OACS

Search Results - Record(s) 1 through 6 of 6 returned.

☐ 1. Document ID: US 6858646 B2

Using default format because multiple data bases are involved.

L6: Entry 1 of 6

File: USPT

Feb 22, 2005

US-PAT-NO: 6858646

DOCUMENT-IDENTIFIER: US 6858646 B2

TITLE: Neuroprotective composition and uses thereof

DATE-ISSUED: February 22, 2005

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY

Paquin; Joanne Montreal CA
Mateescu; Mircea-Alexandru Montreal CA
De Grandpre; Eric Joliette CA

US-CL-CURRENT: 514/458; 514/557, 514/558, 514/725, 514/763

Full Title Citation Front Review Classification Date Reference

☐ 2. Document ID: US 6858399 B2

L6: Entry 2 of 6

File: USPT

Feb 22, 2005

US-PAT-NO: 6858399

DOCUMENT-IDENTIFIER: US 6858399 B2

TITLE: Test for oxidative stress using cell suspensions

DATE-ISSUED: February 22, 2005

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY

Lamb; Robert Midlothian VA 23113

US-CL-CURRENT: 435/7.21; 435/2, 435/25, 435/375, 435/383, 435/384, 435/4, 435/7.25,

<u>436/503</u>, <u>436/63</u>, <u>436/71</u>, <u>436/901</u>

Full Title Citation Front Review Classification Date Reference

☐ 3. Document ID: US 6780842 B2

L6: Entry 3 of 6

File: USPT

Aug 24, 2004

US-PAT-NO: 6780842

DOCUMENT-IDENTIFIER: US 6780842 B2

\*\* See image for Certificate of Correction \*\*

TITLE: Ceruloplasmin and an antioxidant composition comprising the same and their

uses as neuroprotective agent

DATE-ISSUED: August 24, 2004

INVENTOR - INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY

CA Paquin; Joanne Montreal Mateescu; Mircea-Alexandru Montreal CA De Grandpre; Eric Joliette CA

US-CL-CURRENT: 514/2; 530/350, 530/380

Full Title Citation Front Review Classification Date Reference

Claims ROMC Drawe De

4. Document ID: US 6218130 B1

L6: Entry 4 of 6

File: USPT

Apr 17, 2001

US-PAT-NO: 6218130

DOCUMENT-IDENTIFIER: US 6218130 B1

TITLE: Test for oxidative stress using cell suspensions

DATE-ISSUED: April 17, 2001

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY

Lamb; Robert Midlothian VA 23113

US-CL-CURRENT: 435/7.21; 435/2, 435/25, 435/375, 435/383, 435/4, 435/7.25, 436/503,

Full Title Citation Front Review Classification Date Reference Company Company Description Description

<u>436/63</u>, <u>436/71</u>, <u>436/804</u>

5. Document ID: US 20050181021 A1

L6: Entry 5 of 6 File: DWPI Aug 18, 2005

DERWENT-ACC-NO: 2005-581708

DERWENT-WEEK: 200559

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# **Refine Search**

# Search Results -

Terms	Documents
(vitamin adj1 e adj1 phosphate) same cell	6

US Pre-Grant Publication Full-Text Database
US Patents Full-Text Database
US OCR Full-Text Database
EPO Abstracts Database
JPO Abstracts Database
Derwent World Patents Index
IBM Technical Disclosure Bulletins

Search:

Database:

Recall Text 🔷



# Search History

DATE: Wednesday, March 01, 2006 Printable Copy Create Case

Set Name	<del></del>	Hit Count	
side by side			result set
DB=US	SPT,EPAB,JPAB,DWPI,TDBD; PLUR=YES; OP=C	)R	
<u>L6</u>	(vitamin adj1 e adj1 phosphate) same cell	6	<u>L6</u>
<u>L5</u>	(vitamin adj1 e adj1 phosphate) same cytoprotect\$	0	<u>L5</u>
<u>L4</u>	(vitamin adj1 e adj1 phosphate) same oxidat\$	20	<u>L4</u>
<u>L3</u>	(vitamin adj1 e adj1 phosphate) and liposome	28	<u>L3</u>
<u>L2</u>	(vitamin adj1 e adj1 phosphate) same liposome	1	<u>L2</u>
<u>L1</u>	(tocopher\$ adj1 phosphate) same liposome	6	<u>L1</u>

**END OF SEARCH HISTORY** 

# **Hit List**

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**Search Results** - Record(s) 1 through 7 of 7 returned.

☐ 1. Document ID: US 6979459 B1

Using default format because multiple data bases are involved.

L7: Entry 1 of 7

File: USPT

Dec 27, 2005

US-PAT-NO: 6979459

DOCUMENT-IDENTIFIER: US 6979459 B1

TITLE: Treatment of skin damage using polyenylphosphatidycholine

DATE-ISSUED: December 27, 2005

INVENTOR - INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY

Perricone; Nicholas V. Guilford CT 06437

US-CL-CURRENT: 424/443; 424/400, 424/401, 424/59, 514/456, 514/458, 514/474,

<u>514/78</u>, <u>514/847</u>, <u>602/41</u>

Full Title Citation Front Review Classification Date Reference

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☐ 2. Document ID: US 6932963 B2

L7: Entry 2 of 7

File: USPT

Aug 23, 2005

US-PAT-NO: 6932963

DOCUMENT-IDENTIFIER: US 6932963 B2

TITLE: Treatment of skin wounds using polyenylphosphatidylcholine and alkanolamines

DATE-ISSUED: August 23, 2005

INVENTOR - INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY

Perricone; Nicholas V. Meriden CT 06450

US-CL-CURRENT: 424/59; 424/400, 424/401, 424/60, 514/456, 514/458, 514/474, 514/78,

<u>514/847</u>

Full Title Citation Front Review Classification Date Reference

Claims 1300C Brass to

Record List Display Page 2 of 4

☐ 3. Document ID: US 6294350 B1

L7: Entry 3 of 7 File: USPT Sep 25, 2001

US-PAT-NO: 6294350

DOCUMENT-IDENTIFIER: US 6294350 B1

\*\* See image for Certificate of Correction \*\*

TITLE: Methods for treating fibroproliferative diseases

DATE-ISSUED: September 25, 2001

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY

Peterson; Theresa C. Nova Scotia CA

US-CL-CURRENT: 435/29; 424/277.1, 424/551, 424/553, 424/9.1, 435/17, 435/4, 435/975

☐ 4. Document ID: US 6191121 B1

L7: Entry 4 of 7 File: USPT Feb 20, 2001

US-PAT-NO: 6191121

DOCUMENT-IDENTIFIER: US 6191121 B1

TITLE: Treatment of skin damage using polyenylphosphatidylcholine

DATE-ISSUED: February 20, 2001

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY

Perricone; Nicholas V. Guilford CT 06437

US-CL-CURRENT: 514/78; 424/400, 424/401

Full Title Citation Front Review Classification Date Reference Communication Draws De

☐ 5. Document ID: WO 2004060314 A2

L7: Entry 5 of 7 File: EPAB Jul 22, 2004

PUB-NO: WO2004060314A2

DOCUMENT-IDENTIFIER: WO 2004060314 A2

TITLE: TREATMENT OF SKIN WOUNDS USING POLYENYLPHOSPHATIDYLCHOLINE AND ALKANOLAMINES

PUBN-DATE: July 22, 2004

INVENTOR-INFORMATION:

NAME

COUNTRY

PERRICONE, NICHOLAS V

US

INT-CL (IPC): A61 K 0/

EUR-CL (EPC): A61K031/13; A61K031/685

Full Title Citation Front Review Classification Date Reference

Claims 1000C Brand De

☐ 6. Document ID: US 20030105063 A1, WO 2004060314 A2, AU 2003303516 A1, US 6932963 B2, EP 1581172 A2

L7: Entry 6 of 7

File: DWPI

Jun 5, 2003

DERWENT-ACC-NO: 2003-777341

DERWENT-WEEK: 200566

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TITLE: Treatment of skin wounds, e.g. cut, abrasion, burn, and blemish, comprises applying composition containing polyenylphosphatidylcholine and alkanolamide

INVENTOR: PERRICONE, N V

PRIORITY-DATA: 2002US-0335450 (December 31, 2002), 2000WO-US17463 (June 23, 2000),

2002WO-US18026 (June 6, 2002), 2002US-0257037 (October 7, 2002)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
US 20030105063 A1	June 5, 2003		007	A61K031/685
WO 2004060314 A2	July 22, 2004	E	000	A61K000/00
AU 2003303516 A1	July 29, 2004		000	A61K031/685
US 6932963 B2	August 23, 2005		000	A61K007/42
EP 1581172 A2	October 5, 2005	E	000	A61K007/00

INT-CL (IPC): A61 K 0/00; A61 K 7/00; A61 K 7/42; A61 K 7/44; A61 K 31/13; A61 K 31/195; A61 K 31/34; A61 K 31/35; A61 K 31/355; A61 K 31/385; A61 K 31/685

Full Title Citation Front Review Classification Date Reference

7. Document ID: US 6979459 B1, US 6191121 B1, WO 200176537 A1, AU 200060550 A, EP 1267798 A1, JP 2003530330 W

L7: Entry 7 of 7

File: DWPI

Dec 27, 2005

DERWENT-ACC-NO: 2001-234381

DERWENT-WEEK: 200603

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TITLE: Topical composition for treating skin damage contains

polyenylphosphatidylcholine

INVENTOR: PERRICONE, N V

PRIORITY-DATA: 2000US-0543947 (April 6, 2000), 2002US-0257037 (October 7, 2002)

#### PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
US 6979459 B1	December 27, 2005		000	A61F013/00
US 6191121 B1	February 20, 2001		005	A61K031/685
WO 200176537 A1	October 18, 2001	E	000	A61K007/00
<u>AU 200060550 A</u>	October 23, 2001		000	A61K007/00
EP 1267798 A1	January 2, 2003	E	000	A61K007/00
JP 2003530330 W	October 14, 2003		015	A61K031/685

INT-CL (IPC): A61 F 13/00; A61 K 7/00; A61 K 7/42; A61 K 7/48; A61 K 9/107; A61 K 31/19; A61 K 31/191; A61 K 31/35; A61 K 31/375; A61 K 31/685; A61 K 35/78; A61 P 17/00; A61 P 17/02; A61 P 17/04; A61 P 17/06; A61 P 17/08; A61 P 17/16; A61 P 29/00

Full	Title Citation	Front	Review	Classification	Date	Reference	- <del> </del>		Claims	10MC	Огање Он
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L7: Entry 4 of 7 File: USPT Feb 20, 2001

DOCUMENT-IDENTIFIER: US 6191121 B1

TITLE: Treatment of skin damage using polyenylphosphatidylcholine

## Abstract Text (1):

<u>Polyenylphosphatidylcholine</u> is topically applied to treat skin damage, such as contact dermatitis (particularly diaper area dermatitis), atopic dermatitis, xerosis, eczema (including severe hand and foot eczema), rosacea, seborrhea, psoriasis, thermal and radiation burns, other types of skin inflammation, and aging. Typical compositions contain from about 0.25% to about 10% of a <u>polyenylphosphatidylcholine</u> preparation obtained from natural sources such as soybean oil which contains at least about 25% by weight, preferably about 40% or more, dilinoeoylphosphatidylcholine.

### Brief Summary Text (14):

These and other objectives of the invention are accomplished by the present invention, which provides polyenylphosphatidyl choline (sometimes herein referred to as PPC), which is topically applied to exposed or affected skin areas, primarily for the treatment but also for the prevention of skin damage, often in association with a dermatologically acceptable carrier. The amount of PPC necessary to treat damaged skin is not fixed per se, and necessarily is dependent upon the complement of dilinolecyl and other unsaturated and polyunsaturated moities attached to the phosphatidylcholine molecular nucleus in the phosphatidylcholine preparation employed, the amount and type of any adjunct ingredients employed in the composition, the user's skin type, and the severity, extent, and nature of the dermatological problem treated. In some typical embodiments, the composition contains from about 0.25% to about 10 weight %, more narrowly from about 1% to about 5 weight %, polyenylphosphatidylcholine. In one embodiment, about 2% to about 3% PPC is employed.

## Detailed Description Text (2):

In the practice of the invention, <u>polyenylphosphatidylcholine</u> is used to treat skin damage when topically applied in effective amounts.

## <u>Detailed Description Text</u> (3):

Any synthetic or natural polyenylphosphatidylcholine preparation may be employed in compositions of the invention. Natural preparations are preferred because they exhibit desirable physical characteristics and are both economical and nontoxic. By "polyenylphosphatidylcholine" is meant any phosphatidylcholine bearing two fatty acid substituents, wherein at least one is an unsaturated fatty acid with at least two double bonds. Preferred PPCs contain a mixture of substitutents such as those found in natural products. The fatty acids can be saturated or unsaturated and of any length, from C, (acetic) to C.sub.28 (montanic), but typically range between C.sub.12 and C.sub.18 because most commercial products are vegetable oil extracts containing common fatty acids. Preferred polyenylphosphatidylcholines contain at least one linoleic (18:2) group, most preferably two, in a cis geometrical configuration typical of natural products, but some preparations contain linolenic (18:3) or eleostearic (20:3) groups in the doubly unsaturated component. As mentioned, preferred PPC compositions have dilinoleoylphosphatidylcholine (18:2--18:2 PC) as the most abundant PC species, present in the preparation at levels of at least about 25%, preferably at least about 40% by weight. A typical PPC

preparation available from Rhone-Poulenc is a soybean extract containing about 42% dilinoleoylphosphatidylcholine and about 24% palmitoyllinoleylphosphatidylcholine (16:0-18:2 PC) as the major PC components.

### Detailed Description Text (4):

Polyenylphosphatidylcholines are fat-soluble. Therefore, PPC preparations can be applied neat to skin tissue. It is an advantage of the invention that the active compound is fatty so that it physically contributes to the lubrication of affected skin areas to which it is applied.

### Detailed Description Text (12):

When skin is inflamed from ultraviolet radiation, irritants, trauma, and other reasons, phospholipase-A-2 produces arachidonic acid from the phospholipidrich membranes of the cell, resulting in the production of metabolites. We now know that stabilization of the cell membrane can inhibit the inflammatory cascade, therefore preventing the inflammatory response. It is also now known that arachidonic acid has a direct toxic effect on the mitochondria, resulting in the uncoupling of oxidative phosphorylation, resulting in free radical damage to the mitochondrial membrane, Polyenylphosphatidylcholine appears to intersperse in the cell membrane, stabilizing the membrane, and, at the same time, providing antioxidant capability. In addition, the incorporation of polyenylphosphatidylcholine into the cell membrane appears to enhance membrane activity, such as exchange of nutrients and wastes of the cellular environment. This also enhances cellular function and repair.

#### CLAIMS:

- 1. A topical composition comprising from about 0.1% to about 10% by weight polyenylphosphatidylcholine in a dermatologically acceptable carrier.
- 2. A composition according to claim 1 which contains from about 2% to about 5% by weight polyenylphosphatidylcholine.
- 3. A composition according to claim 1 wherein dilinoleoylphosphatidylcholine comprises at least about 25% by weight of the polyenylphosphatidylcholine.
- 4. A composition according to claim 3 wherein dilinoleoylphosphatidylcholine comprises at least about 40% by weight of the polyenylphosphatidylcholine.
- 5. A composition according to claim 1 comprising from about 0.25% to about 10% by weight polyenylphosphatidylcholine.
- 6. A composition according to claim 5 which contains from about 1% to about 7% by weight polyenylphosphatidylcholine.
- 7. A composition according to claim 6 which contains at least about 40% by weight dilinoleoylphosphatidyl choline in the polyenylphosphatidylcholine.
- 8. A composition according to claim 1 wherein the polyenylphosphatidylcholine is obtained from soybean oil.
- 10. A method for the treatment of skin damage comprising topically applying to the skin a composition containing from about 0.1% to about 10% polyenylphosphatidylcholine.
- 11. A method according to claim 1 wherein the composition contains from about 2% to about 5% polyenylphosphatidylcholine.
- 12. A method according to claim 10 wherein dilinoleoylphosphatidylcholine comprises at least about 25% by weight of the polyenylphosphatidylcholine component.

- 13. A method according to claim 10 wherein the composition comprises from about 0.25% to about 10% by weight polyenylphosphatidylcholine.
- 14. A method according to claim 13 wherein the composition contains from about 1% to about 7% by weight polyenylphosphatidylcholine.
- 15. A method according to claim 13 wherein the composition contains at least about 40% by weight dilinoleoylphosphatidyl choline in the polyenylphosphatidylcholine.
- 16. A method according to claim 13 wherein the polyenylphosphatidylcholine is obtained from soybean oil.

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L9: Entry 18 of 35

File: USPT

Oct 14, 1997

DOCUMENT-IDENTIFIER: US 5676928 A

TITLE: Liposomes

## Brief Summary Text (45):

Neutral phospholipids useful in the present invention include, for example, neutral glycerophospholipids, for example a partially or fully hydrogenated naturally occurring (e.g. soybean- or egg yolk-derived) or synthetic phosphatidylcholine, particularly semi-synthetic or synthetic dipalmitoyl phosphatidylcholine (DPPC) or distearoyl phosphatidylcholine (DSPC).

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L9: Entry 28 of 35

File: USPT

Aug 15, 1989

DOCUMENT-IDENTIFIER: US 4857319 A TITLE: Method for preserving liposomes

# Detailed Description Text (9):

Suitable lipids include both naturally occurring and synthetically prepared phosphatidylcholine ("PC"), phosphatidic acid ("PA"), phosphatidylserine ("PS"), phosphatidylethanolamine ("PE"), sphingolipids, phosphatidylglycerol ("PG"), spingomyelin, cardiolipin, glycolipids, gangliosides, cerebrosides and the like used either singularly or intermixed. Illustrative lipids are soybean phospholipids, egg phosphatidylcholine ("EPC"), dilauryloylphosphatidylcholine ("DLPC"), dimyristoylphosphatidylcholine ("DOPC"), dipalmitoylphosphatidylcholine ("DPPC"), distearoylphosphatidylcholine ("DSPC"), 1-myristoyl-2palmitoylphosphatidylcholine ("MPPC"), 1-palmitoyl-2myristoyl phosphatidylcholine ("PMPC"), 1-palmitoy1-2-stearoyl phosphatidylcholine ("PSPC"), 1-stearoy1-2palmitoyl phosphatidylcholine ("SPPC"), dioleoylphosphatidylycholine ("DOPC"), dilauryloylphosphatidylglycerol ("DLPG"), dimyristolphosphatidylglycerol ("DMPG"), dipalmitoylphosphatidylglycerol ("DPPG"), distearolyphosphatidylglycerol ("DSPG"), dioleoylphosphatidylglycerol ("DOPG"), dimyristoyl phosphatidic acid ("DMPA"), dipalmitoyl phosphatidic acid ("DPPA"), dimyristoyl phosphatidylethanolamine ("DMPE"), dipalmitoyl phosphatidylethanolamine ("DPPE"), other PE species, dimyristoyl phosphatidylserine ("DMPS"), dipalmitoyl phosphatidylserine ("DPPS"), brain phosphatidylserine ("PS"), brain sphingomyelin ("BSP"), dipalmitoyl sphingomyelin ("DPSP"), and distearoyl sphinmyelin ("DSSP").

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L12: Entry 1 of 12

File: USPT

Dec 5, 2000

DOCUMENT-IDENTIFIER: US 6156339 A

TITLE: Process for preparing solid pharmaceutical dosage forms

## Brief Summary Text (31):

The lipids which can be used in the present invention include waxes such as beeswax, carnauba wax, or lanolin; saturated or non-saturated fatty acids (preferably C.sub.10 -C.sub.30) such as stearic acid or oleic acid; derivatives of such fatty acids such as sodium stearyl fumarate and glycerol esters including mono-, di- or triglycerides such as glyceryl monostearate, glyceryl palmitostearate or mixtures thereof, lecithins such as soybean lecithin or egg lecithin; phospholipids or lysophospholipids including phosphatidylcholine, phosphatidylethanolamine, phosphatidylinositol, phosphatidylserine, phosphatidic acid and mixtures thereof; glycolipids such as cerebroside; sterols such as cholesterol; oils such as mineral oil, cotton seed oil, castor oil, soybean oil, peanut oil and coconut oil; hydrogenated vegetable oil; fatty hydrocarbons or alcohols (preferably C.sub.10 -C.sub.30); or any mixtures or combinations thereof.

 $\frac{\text{Current US Original Classification}}{424/450} \text{ (1)}:$ 

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L12: Entry 11 of 12

File: USPT

Oct 1, 1985

DOCUMENT-IDENTIFIER: US 4544545 A

TITLE: Liposomes containing modified cholesterol for organ targeting

## <u>Detailed Description Text</u> (2):

In accordance with this invention, liposomes are provided which contain a tracer material, a cytotoxic agent or a therapeutic agent. The liposomes of this invention are characterized by the inclusion in the monolayer or bilayer a chemically modified cholesterol which is modified so that the liposome is rendered more specific for rapid and preferential accumulation in vivo to a specific desired organ. The liposomes can be unilamellar or multilamellar and can be formed from any lipid material conventionally utilized to form liposomes. Representative suitable lipid materials that can be utilized to form liposomes include distearoyl phosphatidylcholine and/or L-.alpha.-dipalmitoyl phosphatidylcholine or similar lipid substances or naturally occurring cells such as red blood cells. The walls of the liposomes can also be formed from soybean phospholipid, egg yolk lecithin and L-60 -dimyristoyl phosphatidylcholine. The liposomes may be prepared by simple sonication from liquid suspension, hydration of crystallized lipids or any other conventional procedure well known in the art. Generally, the liposomes have a size range of between about 0.001 and about 10 microns.

<u>Current US Cross Reference Classification</u> (3): 424/450

# Refine Search

#### Search Results -

Terms	Documents
L11 and (424/450).ccls.	12

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US Patents Full-Text Database
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IBM Technical Disclosure Bulletins

L12

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DATE: Wednesday, March 01, 2006 Printable Copy Create Case

Set Name Query Hit Count Set Name side by side result set DB=USPT, EPAB, JPAB, DWPI, TDBD; PLUR=YES; OP=ORL11 and 424/450.ccls. L12 12 L12 L11 (soy\$ adj5 egg) adj10 phosphatidylcholine 69 L11 <u>L10</u> (soy\$ adj5 egg) adj5 phosphatidylcholine 35 L10 <u>L9</u> (soy\$ adj3 egg) adj5 phosphatidylcholine L9 35 L8 L7 and liposome 1 L8 7 L7 polyenylphosphatidylcholine L7 <u>L6</u> (vitamin adj1 e adj1 phosphate) same cell 6 <u>L6</u> <u>L5</u> (vitamin adj1 e adj1 phosphate) same cytoprotect\$ 0 <u>L5</u> L4 (vitamin adj1 e adj1 phosphate) same oxidat\$ 20 L4 L3 (vitamin adj1 e adj1 phosphate) and liposome 28 <u>L3</u> L2 (vitamin adj1 e adj1 phosphate) same liposome <u>L2</u> 1 <u>L1</u> (tocopher\$ adj1 phosphate) same liposome 6 <u>L1</u>

**END OF SEARCH HISTORY**